

HPM130 Compact Pressure Transmitter



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Overview

HPM130 compact pressure transmitter adopts miniaturized structural design, compact size, while using high-performance silicon piezoresistive sensor, with high precision electronic conditioning circuit, through strict process assembly and production. This product has a strong stainless steel shell, a variety of output signals can be selected, wide temperature zone compensation, strong anti-interference, good long-term stability and so on. In addition, the pressure sensor inside the product adopts the isolated diaphragm structure, which can complete the pressure measurement and control of various media such as gas, liquid and steam. The product adopts the modular design, and has a variety of electrical interface, and combination pressure interface. A wide range of options to meet most pressure measurement needs in the industrial sector.

Features

- Compact structure, suitable for installation in small space
- Wide measuring range, can measure gauge pressure, absolute pressure and sealed gauge pressure
- Universal for oil, water and gas
- Good long-term stability

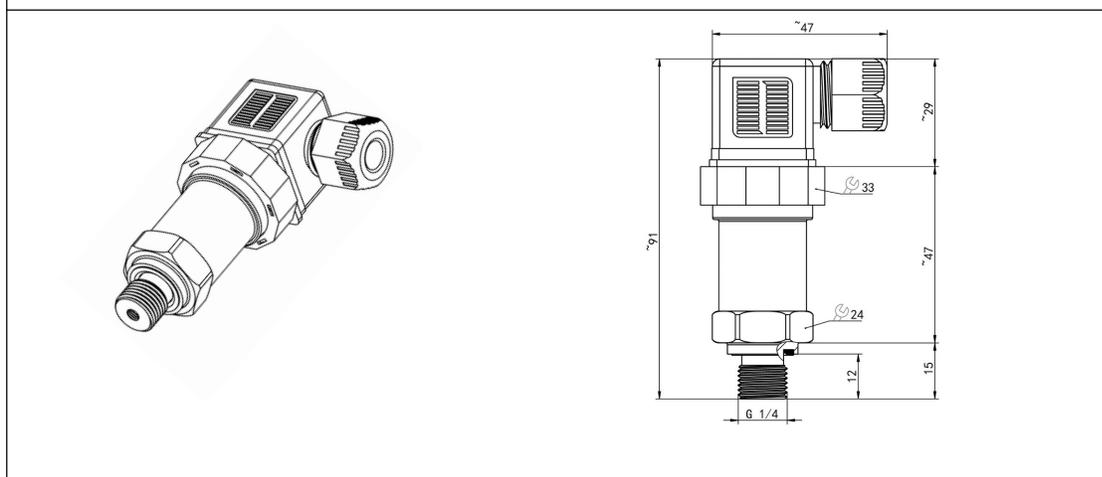
Technical Parameters

Measuring range	-100kPa...0 ~ 2kPa...60MPa,Gauge
	0 ~ 10kPa...10MPa, Absolute
Overload	1.5x
Measuring medium	All types of liquids and gases compatible with contact materials
Output signal/ Power supply	
Two-wire	4~20mA / Vs=8~30V
Three-wire	0 ~ 5V / Vs=8.5~30V or Vs=3.1~8V (At the same time, it must be higher than the maximum output voltage 0.4V)
Three-wire	0 ~ 10V / Vs=12~30V
Four-wire	RS485 / Vs=6 ~ 30V
Performance	
Accuracy	±0.5%FS @25℃ ±0.2%FS @25℃ ±0.1%FS @25℃
Long-term stability	±0.25%FS/ year (0.5% accuracy) ±0.2%FS/ year (0.2% accuracy) ±0.1%FS/ year (0.1% accuracy)
Resolution	Usually ≤0.01%, Only affected by the output noise level
Response time	About 1ms
Turn-on time	≤200ms
Temperature drift characteristic	
Compensation temperature scope	0 ~ 70℃ (0.5% accuracy) -10 ~ 80℃ (0.2% accuracy) -20 ~ 85℃ (0.1% accuracy) Note: Measuring range ≤20kPa please consult
Temperature effect	±1.0%FS reference 25℃, within temperature compensation (Temperature drift of 10kPa range)

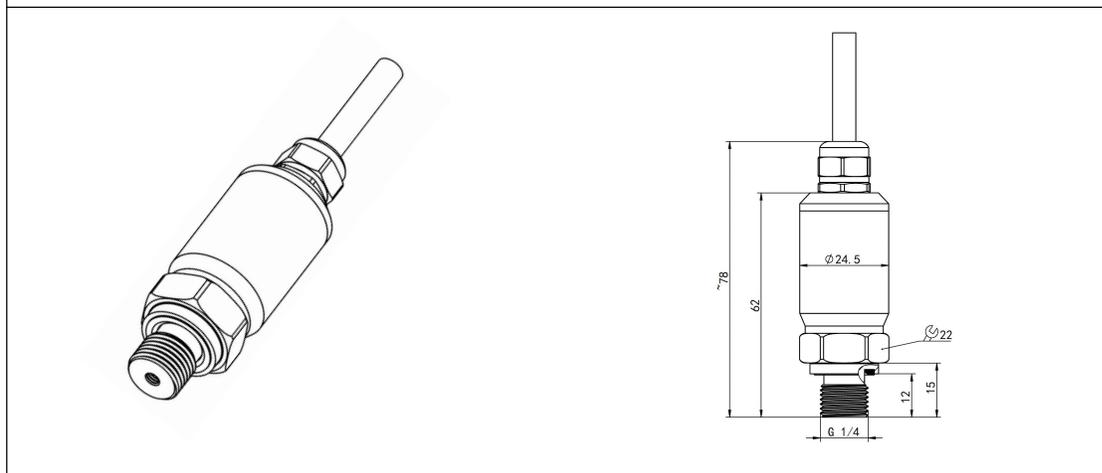
on zero	±2.0%FS, 0 ~ 60°C)
Full degree of temperature drift	±1.0%FS reference 25°C, within temperature compensation (Temperature drift of 10kPa range ±2.0%FS, 0 ~ 60°C)
Environmental conditions	
Temperature range	Ambient temp: -40 ~ 100°C Medium temp: -40 ~ 125°C Storage temp.: -40 ~ 85°C
Protection grade	IP65, Hirschmann IP66, M12×1 IP67, cable outlet
Mechanical stability	
Vibration	10g(20~2000Hz)
Shock resistance	100g(11ms)
Insulation	
Insulation resistance	>20MΩ @500VDC
Dielectric strength	<2mA @ 500VAC

Structure Drawings

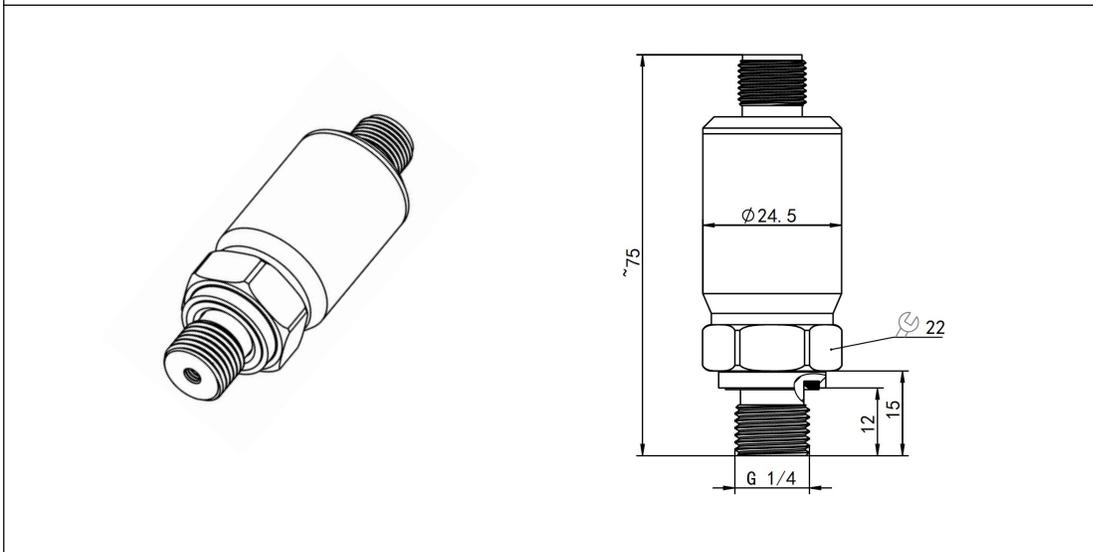
Hirschmann connection type (ordering code C1)



Cable outlet type (ordering code C2)



M12×1 (ordering code C5)



Electrical Connection

Hirschmann(Ordering code C1)	Cable Outlet(Ordering code C2)
M12*1(Ordering code C5)	M12*1, with cable(Ordering code C5X)

Two wire 4 ~ 20mA current output		
Signal	Power+(+V)	Power-(0V/+OUT)
Hirschmann/DIN43650	1	2
Cable outlet	Red	Black
M12×1	1	2
M12×1 with cable	Brown	Black

Three wire 0~5V/10Vvoltage output			
Signal	Power+ (+V)	Power-(GND)	Signal(+OUT)
Hirschmann/DIN43650	1	2	3
Cable outlet	Red	Black	Blue
M12×1, 4P	1	2	3
M12×1 with cable	Brown	Black	Blue

Four wire Modbus-RTU/RS485				
Signal	Power+(+V)	Power-(-V)	RS485A	RS485B
Hirschmann/DIN43650	1	2	3	4
Cable outlet	Red	Black	Yellow	Green
M12×1, 4P	1	2	3	4
M12×1 with cable	Brown	Black	Blue	White

Ordering Guide

Item NO.	Type						
HPM130	Compact Pressure Transmitter						
	Pressure Range (0 ~ X)kPa	Measuring Range Fill out X directly					
		Code	Output Signal				
		B1	(4~20)mA				
		B3	(0~10)V				
		B4	(0~5)V				
		B5	(1~5)V				
		B7	RS485				
		B15	(1~10)V				
		Code	Thread Spec				
		P1	M20x1.5 Male				
		G12	G1/2 Male				
		G14	G1/4 Male				
		P8	NPT1/4 Male				
		Code	Electrical Connection				
		C1	DIN43650				
		C2	Cable Output				
		C5	M12x1				
		C5X	M12x1, with connecting cable				
		Code	Sensor Diaphragm				
		M1	316L				
		M2	Titanium(Ti)				
		M3	Tantalum(Ta)				
		M4	Hastelloy C-				
		Code	Process Connection				
		S4	304				
		S6	316L				
		Code	Additional Function				
		G	Gauge				
		S	Sealed gauge				
		A	Absolute				
		J1	0.1% accuracy				
		J2	0.2% accuracy				
		J5	0.5% accuracy				
HPM130	(0~200)kPa	B1	G14	C1	M1	S4	G J5